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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,368	04/15/2004	Toru Noguchi	119482	6615

25944 7590 06/21/2006

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EXAMINER
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WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,368	<b>Applicant(s)</b> NOGUCHI ET AL.	
	<b>Examiner</b> Thomas J. Williams	<b>Art Unit</b> 3683	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,8-13,15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13,15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed April 13, 2006.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-6, 8-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,076,593 to Sullivan et al. in view of RO 117023 to Anglitoiu et al.

Re-claims 1, 8-13, 15 and 16, Sullivan et al. teach a piston seal used in a caliper body of a disc brake, wherein the piston seal 124 fluid tightly and slidably maintains a piston 14 in a cylinder bore, the piston slides in the bore, the piston is rolled back by the seal, see abstract, the seal is formed from a rubber composition; the cylinder 12 has a cylinder bore 12b' including a ring shaped groove formed on an inner surface of the bore, the seal is fitted into the ring shaped groove 13, wherein the piston when inserted in the bore, is fluid-tightly and movably in contact

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with the cylinder, and the piston that has been moved forward by applying hydraulic pressure is rolled back by the piston seal (as known in the art). However, Sullivan et al. fail to teach the exact composition of the seal, in particular the seal being composed of at least 100 parts by weight or more of carbon black added to 100 parts by weight of ethylene propylene rubber.

Anglitoiu et al. teach a rubber composition used in high temperature environments, the composition is formed from 100 parts by weight of ethylene propylene and 100 parts by weight of carbon black, see abstract lines 1-5. It would have been obvious to one of ordinary skill in the art to have utilized the teachings of Anglitoiu et al. regarding the use of ethylene propylene and carbon black when having manufactured the seal for Sullivan et al., thus providing the brake apparatus a seal that can withstand high temperature and maintain sufficient elasticity.

Re-claims 2-6, each of the recited limitations is interpreted by the examiner as an engineered design choice based in part upon the required performance characteristics. It would have been obvious to one of ordinary skill in the art as a matter of design choice to have provided the seal with the various recited limitations, since the applicant has not disclosed the limitations as solving any specific problem or are for any particular purpose and it appears that the seal of Sullivan et al. as modified by Anglitoiu et al. would have performed equally well when having been designed within the range of each of the recited limitations.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-13, 15 and 16 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reiner teaches a piston seal made from 100 parts of ethylene propylene with up to 60 parts carbon black, thus this use of these materials are known in the piston seal art.

7. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan, can be reached at 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

June 16, 2006

**THOMAS J. WILLIAMS**  
**PRIMARY EXAMINER**

*Thomas Williams*

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6-16-06